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10/666,704	09/19/2003	Robert Leah	5577-279	1987

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Timothy J. O'Sullivan
Myers Bigel Sibley & Sajovec, P.A.
P.O. Box 37428
Raleigh, NC 27627

EXAMINER	
WOODS, ERIC V	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,704	LEAH ET AL.	
	Examiner	Art Unit	
	Eric V Woods	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 September 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20041216*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner does not believe it necessary to specify "Computer Product" as applicant has, as the methods are implemented on a computer and that is redundant, and further, the invention is directed to filtering tree map data to produce another tree map visualization, not to generic "content" visualization.

The following title is suggested: "Methods and Systems for Filtering Tree Map Data for Tree Map Visualization".

2. Content of Specification

(f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

3. The specification is objected to because of the following informalities:

Applicant should be aware that the Brief Summary section of the invention is **not** intended for applicant to merely recite sample claims (or all claims). There should be a

bit more material, as specified above – particularly the advantages of the invention, not a recitation of the claims.

Appropriate correction is required.

Drawings

4. The drawings are objected to because Figure 3 shows an element 260 and that is labeled as "tree map", whereas on the specification on page 8, element 260 is listed as "tree map module". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim 8 is objected to because of the following informalities: the terms "the at least on a threshold value" is used, where the correct, intended terms are obviously "the at least one threshold value". Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> **Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.**

7. Claims 1-2, 4-6, 9-11, 12-13, 15-17, and 20-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These inventions are not technologically embodied, e.g. they recite processes that only manipulate abstract data and do not produce a tangible result. As such, they are *prima facie* nonstatutory (see MPEP 2106, *In re Prater* doctrine). A human being also anticipates them with pencil and paper (see following 102 rejection). In order to make claims 1-11 statutory, the preamble should be amended to include that the method is "computer-implemented". The same correction would also bring claims 12-23 into compliance if the wording were added to the preamble of claim 12.

To expedite a complete examination of the instant application, the claims rejected above under 35 U.S.C. 101 (nonstatutory) are rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6, 9-11, 12-17, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by a mental process performed by a human being augmented with a pencil and paper. [See MPEP 2106, *In re Prater* doctrine.]

For example, the method in claim 1 recites consists of displaying data – a human being drawing on a piece of paper or the like can perform this step. Further, the filtering so recited can be done as a mental process by a human being, e.g. by listing three numbers on the paper, circling them or designating them having some relationship as is fundamentally known in mathematics (e.g. a tree structure of some sort), and then performing a mental process to filter out any unwanted node(s). Finally, the generation of a tree map visualization based on the results -- this visualization can be drawn on a piece of paper after such mental processes are performed by a human being, with both steps being performed by said human being.

Claims 3 and 14 are drawn to a processor, but this processor is never specified to be in a computer. For example, in cognitive psychology there is a concept called "cognitive load" wherein the amount of focus / concentration as a percentage of the overall cognitive capacity of an individual is measured, which could easily be the "utilization" recited by the claim. Further, historically, there have been positions within

corporations – e.g. "data processor" roles – filled by human beings. So this is not a limitation that prevents a human being from performing the recited tasks.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

11. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "relative" in claims 1, 12, and 23 is a relative term, which renders the claim indefinite. The term "reduced amount of data relative to ..." is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. The term "relative" when used with "reduced" leaves one of ordinary skill in the art unable to ascertain what metric is being used to measure reduced volume (e.g. node count, etc.).

The dependent claims are rejected for not correcting the deficiencies of the parent claim(s).

Claim 5 recites the limitation "the tree map visualization" in the last line. There is insufficient antecedent basis for this limitation in the claim – that is, there are both first and second tree map visualizations recited in the parent claim(s) and the present claim, which require the use of either 'first' or 'second' to specify the tree map visualization being cited.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

14. Claims 1-4, 9-15, 20-26, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shneiderman ("Tree Visualization with Tree-Maps: 2-d Space Filling Approach")('Shneiderman') in view of Leshem et al (US 6,470,383 B1)('Leshem') [Claims 1-11 recite a method. Claims 12-22 recite an apparatus that implements that method. Claims 23-33 recite a computer program that performs that method. Therefore, any rejections valid upon claims 1-11 is equally valid and binding upon the comparable claims amongst the three groups, e.g. claim 1 maps exactly to claim 12 to claim 23, etc. Merely reciting "an apparatus" in place "a method" in place of "a computer program on computer readable media containing instructions for making a computer" does **not** change the scope of the claims in any case. Applicant also discloses in dependent claims that such methods, apparatuses, and software are all intended to be operable on a computer platform anyway. It is also a fundamental of the art that visualization tools only make sense or can be actually produced / reduced to practice with the aid of computer systems with display means of some sort [that is, any kind of visualization method that falls within the technological arts and that is patentable; that is, any method that cannot be performed by a human being or is written in such a way that it cannot require a human being, e.g. by reciting a computer program or for

execution by a computer (e.g. computer-implemented).] As such, software is an obvious variation and all rejections valid on claims 1 and 12 are equally valid and binding on claim 23 and its dependents.]

As to claims 1, 12, and 23,

A method of displaying data from a first data set utilized in generating a first tree map visualization, comprising: (Shneiderman Fig. 2 for the displayed data (p. 94) derived from the tree-map shown in Fig. 1 (p. 93))

-Filtering the first data set so as to provide a second data set having a reduced amount of data relative to the first data set; and (Leshem Fig. 1 showing a data set, 2:10-25 clearly stating filtering of content objects)

-Generating a second tree map visualization based on the second data set. (Leshem 2:10-26 – the map is generated after filtering, and the tool allows the user to save maps to and from disks – this is fundamental to the way the tool works, e.g. displaying the new data set after filtering; Shneiderman Fig. 2, p. 94 – Tree-map visualization generated from tree data set shown in Fig. 1)(Leshem 4:38-46, Fig. 16 shows the results of a filter applied to the data set of Fig. 1)(Reference Shneiderman expressly teaches "small files and zero byte files become too small to represent and are eliminated" (p. 96, *Display resolution* section). This clearly shows that the file size is a threshold value and that filtering explicitly takes place).

Reference Shneiderman teaches all the limitations of the claim except filtering. Reference Leshem applies filtering to tree-based data sets. Fundamentally, the tree-map visualization technique recited by applicant in the above claim is well known in the

art (Shneiderman and applicant's own admission in the background section of the specification, the reference to the Johnson and Shneiderman paper (Johnson et al)). Applicant's claimed invention is directed at filtering elements for display in such a system, which is a well-known technique. Clearly, the tree-map is a visualization technique. Therefore, it can logically be applied to any given data set that is a tree. Reference Leshem clearly teaches data sets that are trees (see Figs. 1-3) and teaches the filtering of such trees (4:5-10) while data sets are displayed. Reference Shneiderman also teaches the displaying of tree-map elements based on their numerical weight (Fig. 2, p. 94). Finally, the Leshem tool clearly displays a new, reduced data set after filtering – it is fundamental to how the tool works that after a filtering operation occurs, the new data set would be displayed (Leshem 4:38-46, Fig. 16 shows the results of a filter applied to the data set of Fig. 1).

Clearly the Shneiderman reference is analogous art, and the Leshem reference shares the same problem solving area (data visualization), while both references would fall into the same classification area (345/440).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree map visualization techniques of Shneiderman with the filtering of Leshem, since as discussed above the Shneiderman reference teaches visualizing tree-based data sets (illustrative in Fig. 1, p. 93) exactly like those shown in Figs. 1-3 of Leshem.

As to claims 2, 13, and 24,

The method of Claim 1, wherein generating a second tree map visualization comprises generating a second tree map visualization based on the second data set so as to increase a size of bounding boxes associated with data common to both the first and the second data sets as compared to the first tree map visualization based on the first data set.

References Shneiderman and Leshem teach all the limitations of this claim. Reference Shneiderman clearly shows in Fig. 2 that each element shown in Figure 1 is shown in Fig. 2 with a size equal to the weight shown for that element in Fig. 1. The "bounding boxes" recited by applicant are clearly the rectangular areas on the screen shown in Leshem Fig. 2. Further, once the data set of Leshem is filtered, the new data set is produced. Such a data set *prima facie* has a reduced number of elements, as it represents a subset of the larger, first data set, and all elements in the second tree map visualization are common with the first one. Given that the phrase "tree map visualization" is redundant (e.g. the visualization technique is inherent in the term "tree map" as used by applicant and as used in the Johnson paper), any new tree-type data set fed in the Shneiderman program would be displayed, which would *prima facie* occur (an update of the screen) after the filtering operation was applied.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree map visualizations of Shneiderman with the filtering of Leshem, as above the Shneiderman reference teaches visualizing tree-based data sets (illustrative in Fig. 1, p. 93) exactly like those shown in Figs. 1-3 of Leshem, as it would be obvious to modify the software of Leshem to use the tree-map visualization

technique recited by applicant, and the resultant system would perform exactly the invention recited by applicant.

As to claims 3, 14, and 25,

The method of claim 1, wherein generating a second tree map visualization comprises generating a second tree map visualization based on the second data set so as to decrease utilization of a processor in generating the second tree map visualization based on the first data set.

Reference Shneiderman clearly states on pg. 96 that the algorithm (tree map) runs linearly with the number of nodes in the tree structure. Clearly, if the number of nodes is reduced, as recited in claim 1 ('a reduced amount of data relative to the first data set'), the processing time (or processor utilization) required will decrease. Since only the primary reference is utilized, no separate combination or motivation is required.

As to claims 4, 15, and 26,

The method of claim 1, wherein the first data set is filtered based on at least one of data values of data elements of the first data set utilized in generating the tree map visualization, data values of data elements of the first data set that are not utilized in generating the second tree map visualization and/or metadata associated with the data elements of the first set.

Reference Shneiderman does not explicitly teach this limitation. Reference Leshem teaches the filtering of tree-based data sets (4:38-46, Fig. 16 shows the results of a filter applied to the data set of Fig. 1). The filtering is down based on the status (Lehmen 8:62-68, 9:1-10) of the nodes and other information, which clearly represent

metadata associated with each data element; further, the tree-map of Shneiderman performs sizing based on the value of the data element, so it would obvious to perform filtering based in this way as well, as Shneiderman posits in the applications section (p. 96, section *Applications*) that for example, stock portfolios could be sorted by dollar amount and change, which would obviously imply a form of filtering.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree map visualizations of Shneiderman with the filtering of Leshem, as again Leshem inherently performs filtering based on metadata, and as stated above it would be obvious to modify the system of Leshem to use the values of the data elements as illustrated in Shneiderman.

As to claim 9, 20, and 31,

The method of claim 1, wherein filtering the first data set so as to provide a second data set having a reduced amount of data relative the first data set comprises filtering the first data set such that the second data set provides a tree map visualization with a predefined characteristic.

Reference Shneiderman does not explicitly provide this limitation, whereas reference Leshem teaches this – in that in an example, as listed in the rejection to claim 4, Leshem teaches that the first tree map data set can be filtered to produce a second tree map data set with URLs that only have a status of 'OK', for example (4:38-46, Fig. 16 shows the results of a filter applied to the data set of Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree map visualizations of Shneiderman with the filtering of Leshem, as

again Leshem inherently performs filtering based on metadata and/or data (status, for example), and as stated above it would be obvious to modify the system of Leshem to use the values of the data elements as illustrated in Shneiderman.

As to claims 10, 21, and 32,

The method of claim 1, further comprising generating a display based on a third data set containing data filtered from the first data set to provide the third data set.

Reference Shneiderman does not expressly teach this limitation. Reference Leshem clearly shows in Fig. 5 that multiple windows for display can be open simultaneously, e.g. multiple portions of a log or multiple logs can be shown. Clearly, this establishes that the software is capable of simultaneously displaying multiple data sets, which is simply a matter of tiling multiple windows next to each other, as is a fundamentally well known characteristic of applications running under modern, windowed operations systems (e.g. Microsoft® Windows™, as taught by Leshem 2:1-10). This would clearly meet the recited limitation of applicant above, as both versions of the data set could be shown next to each other (for example, to show two filtered versions of the same site, one with images and one with some other kind of file – see 2:10-20, 5:30-50, etc., as the application clearly allows filtering by multiple content types). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree map visualizations of Shneiderman with the filtering of Leshem, as again Leshem inherently performs filtering based on metadata and/or data (status, for example), and as stated above it would be obvious to modify the system of Leshem to use the values of the data elements as illustrated in Shneiderman.

As to claim 11, 22, and 33,

The method of claim 10, wherein the generated display comprises a second tree map visualization.

See the rejection for claim 10, which is hereby incorporated by reference in its entirety. As stated above, it would be obvious that the application could show multiple windows (see Fig. 5) and that multiple data sets could be shown simultaneously – and, as shown in Fig. 5, multiple windows showing different views of one tree map are present. The combination and motivation is brought from the incorporated rejection to claim 10.

15. Claims 5-7, 16-18, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shneiderman in view of Leshem as applied to claim 1 above, and further in view of Nguyen et al (US 6,101,279)('Nguyen').

As to claims 5, 16, and 27,

The method of claim 1, wherein filtering the first data set so as to provide a second data set having a reduced amount of data relative to the first data set comprises filtering the first data set based on at least one threshold value of data utilized in generating the tree map visualization.

References Shneiderman expressly teaches "small files and zero byte files become too small to represent and are eliminated" (p. 96, *Display resolution* section). This clearly shows that the file size is a threshold and that filtering explicitly takes place. While not explicitly called filtering, this is *prima facie* filtering as recited by applicant, as small files are eliminated from view, which clearly illustrates exclusion of some results

via a threshold file size value, which is inherently required for such an action (e.g. exclusion of small files) to occur. However, the specific threshold value is never mentioned. Reference Leshem teaches the idea of a threshold value (8:62-67, e.g. "...icons of the type best illustrated by Fig. 18 are used to display nodes that fall below a predetermined size threshold..."), but does not eliminate the nodes after they reached the threshold value.

Reference Nguyen clearly teaches the elimination of data points that fall below a threshold value when a tree is being constructed using those values (e.g. Fig. 7, and 3:40-60) during image processing. Nguyen is directed towards a similar problem solving area, specifically reducing storage space and information within tree data structures for displays purposes (e.g. to show to the user – via processing an image). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree visualization techniques of Shneiderman and data filtering of Leshem with the elimination of files / data elements of Nguyen, as Shneiderman clearly teaches the removal of non-visible nodes and Leshem clearly teaches the use of a threshold value and the replacement of items with representative icons, which could easily be eliminated instead, as per Nguyen and Shneiderman.

As to claims 6, 17, and 28,

The method of claim 5, further comprising setting the at least one threshold value of data so as to provide a tree map visualization having a predefined minimum bounding box area.

References Shneiderman and Leshem do not expressly teach this limitation. However, as covered in the rejection to claim 5, they implicitly teach this limitation, as once the items displayed in Leshem pass a certain minimum size threshold they are replace by icons.

Reference Nguyen clearly teaches the use of minimum size bounding boxes for coding – e.g. the screen is only split into sixteen quadrants for coding purposes (Fig. 8, which clearly maps the tree structure of Fig. 7 into a coding structure similar to that of Fig. 6, 3:25-40 to back that up). Further, it is clearly established that Leshem teaches that files of a certain minimum size and zero byte files are eliminated. Shneiderman clearly teaches that each rectangle is an appropriate size (e.g. equivalent percentage of the area) of the overall area or the area its parent node is assigned. Given that both Leshem and Shneiderman teach a certain minimum size (Shneiderman gets rids of the files, Leshem replaces them with an icon (Shneiderman also teaches that zooming could be added to reveal small files (pg. 96)) and Nguyen teaches a minimum size box to divide the image into (e.g. the image is not broken down any farther), it would be obvious to modify the system of Shneiderman to have a minimum size bounding box – that is, the idea is obviously there, and if files that are not clearly visible are removed – and the graphics accompanying Shneiderman, e.g. Fig. 4 clearly show that there are some small elements or boxes present, the modification would have been obvious in order to allow a coherent view of the data set.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the tree maps of Shneiderman with the tree data

structures and filtering of Leshem and the image mapping and tree data structures of Nguyen as set forth above, especially given that the rectangles shown in Fig. 4 do have a minimum displayed size (e.g. there are a few that are barely visible but are there, indicating that indeed such filtering – and a minimum size is present, see the note in pg. 96, Shneiderman, that each file gets an average of 200 pixels in his display version).

As to claims 7, 18, and 29,

The method of Claim 6, wherein the predefined minimum bounding box area is greater than a minimum area for a bounding box that a display device is capable of displaying.

See the rejections for claims 5 and 6 for a clear explanation of what the three references do and do not teach. For example, Shneiderman makes it clear that he eliminates rectangles from the display when they become too small, and as shown in Fig. 4, some very small squares are still shown. There is a point at which the human eye can no longer discriminate pixels of different colors immediately next to each other, e.g. the resolution becomes too fine. This point is different for each display of course, but with the VGA display of Shneiderman (pg. 96) one pixel would be too small and this would be obvious to one of ordinary skill in the art – this point would be the threshold value (in pixels) discussed in Leshem and the idea of a minimum size for breaking an image into is put forward in Nguyen as taught in the rejections to claims 5 and 6. Again, since differentiating rectangles at a resolution of one pixel (minimum resolution of a display device) is too small to be visible (usefully, without a magnifying glass) to the human eye (at resolutions equals to or greater than VGA), it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the

tree maps of Shneiderman and Leshem with the minimum bounding box and tree structures of Nguyen for the reasons set forth above. See the note in pg. 96, Shneiderman, that each file gets an average of 200 pixels in his display version, which clearly supports the idea that each box would have a minimum size larger than the 1 pixel minimum resolution of the display.

Allowable Subject Matter

16. Claims 8, 19, and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric V Woods whose telephone number is 703-305-0263. The examiner can normally be reached on M-F 7:30-5:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric Woods

December 28, 2004

JEFFERY BRIER
PRIMARY EXAMINER